EXHIBIT 3-9

From: Mark Fulks <mark.fulks@sun.com>
Sent: Tue Mar 07 2006 14:36:24 PST
To: Konstantin Zolotnikov <konstantin.zolotnikov@sun.com>
CC: armstrong-eng@sun.com <armstrong-eng@sun.com>;Sue Abellera <sue.abellera@sun.com>
Subject: Re: Armstrong 1.0 input from Marketing
Attachments: Graphic1.gif

Importance: Normal
Priority: Normal
Sensitivity: None

I asked this same question. It is an open issue that will need to be
solved. For planning purposes we should assume it is part of what we
need to do. Whether is ends up in the open source distro, or just our
commercial distro, is another question.

Konstantin Zolotnikov wrote:

> Mark,
>
> Sorry, I have a couple of questions to you. We have discussed them
> today with the "armstrong" team and I still want to have your view on it.
> It is of course about MIDP :)
>
> Maybe I misunderstood this, but based on our previous discussions, I
> thought that the MIDP was not considered as the supported profile in
> armstrong project. Am I correct? Now it is clearly stated in Nachi's
> list - MIDP 2.1.
> So I have the following question: looking at open source concept below
> - are we really going to open source the MIDP?
> And maybe more general question that I have now: how it will became
> in-line with our current portfolio we are developing in MIDP/CLDC
> area? and what our licensees/spec owners are going to react to this
> turnout?
>
> Regards,
> Kostya.
>
> Mark Fulks wrote:
>
>> >From Nachi.....
>>
>> mark,
>>
>> here's what you asked for. but prior to that, here are some
>> caveats:
>> - this is more than maybe what you wanted or think we can do
>> but i would like you to have some background for the request

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>> - this is based on where we think the biz model will end up
>> - this is based on where the market may end for java impl
>> around spring next year
>> - this is not the prd =;) and definitely not an mrd =:0 but
>> mktg also got seed money to hire people to develop these
>> documents
>> - this has not been vetted by and accepted by the mgmt chain
>> (i think most people will agree but maybe not on the details)
>> (having said that, there should be no surprises for you...)
>> - feel free to use this to talk with the team developing
>> estimates assuming they understand that this thing is still
>> an egg
>>
>> so prior to giving you marketing's 1.0 take, here's where the
>> biz model team is planning to take the armstrong relationship:
>>
>> at a high level, sun's initial monetization plan is around
>> support and services of the full stack. the open source seeds
>> the platform, a commercial distro of the open source is a
>> catch all, but the delivery of binaries and/or customized
>> sources is where the real value is.
>>
>> full stack here is defined as a full smartphone, qualified,
>> compliant, linux+java platform working on a phone hw platform.
>>
>> the current buckets of value, we believe are the following:
>>
>> customized binary: a chunk of the armstrong market will want
>> a binary solution that works out of the box on their specific
>> hw platform, meeting their specific customer (read: carrier)
>> requirements and their differentiation needs
>>
>> customized source: there will be a handful of large oems (nokia,
>> moto, samsung, semc) who will want the flexibility of having
>> a source code that is tailored to their needs and which allows
>> them to extend the platform to their specific benefits. the
>> nokia example is that they will want the armstrong code base
>> ported to their hw platforms with a certain ui model, and then
>> they will add the s60-ness to it
>>
>> commercial distro: we don't want a lot of people in this bucket.
>> this is essentially a tested, supported version of the open
>> source code base, with the added benefit of getting the tcks,
>> a set of working, integrated 3rd party engines, branding, etc.
>> we will want to push our customers up the chain
>>
>> tck subscription: most people will want to be compliant, so as
>> to satisfy carrier requirements. this will be the left over of
>> oems who want only the open source or get code from somewhere
>> else (maybe channel). there is no branding here...
>>

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>> open source: there maybe some who stick here and not take any of
>> the above. we wish them good night and good luck (qualcomm might
>> be here initially)
>>
>> there is a whole developer tools story right parallel to this. we
>> have not attached a biz model to that yet. this feeds into getting
>> this platform adopted but it also drives any form of isv program
>> we should have. we also need to consider what apps we will include
>> into this bundle.
>>
>> 2 other salient points that i want to call out:
>> - even if we are only talking about 1.0, we need to gear up for
>> 2.0 and 3.0. if we are funded appropriately, 1.0 and 2.0 leads
>> us to leadership and adoption of the platform, 3.0 and on leads
>> sun into putting hooks into the platform to tie it to the back
>> end for services like user/identity mgmt, content mgmt, drm,
>> messaging systems, enterprise enablement, etc. we believe there
>> is more money for sun here potentially big enough to dwarf the
>> client side. (nokia's big play on middleware.... around osgi...)
>> - armstrong should continue to be wireless focussed and protect
>> out other verticals, as we potentially large and growing
>> businesses there (if we ever get appropriate funding).
>>
>> the implications (or the "i don't know quite yet how to put these
>> into real reqts" list):
>> - support and services of and on the full stack are lynchpins. we
>> need to enable portability, integratability, supportability and
>> sustainability of the full stack. however this doesn't have to
>> be at the micro-level we may have today with cldc hi/sjwc or
>> cdc hi; the needs should only be focussed on the area of the full
>> stack and where it should be allowed to change. as a first step,
>> my guess would be that the full stack must be portable to other
>> hardware and telephony stacks and must customizable at the ue
>> level
>> - there are major differences in requirements between open source,
>> commercial distro, and services code base:
>> - hw platform: open and commercial support only 1 from each
>> board vendor
>> - features of value: where possible the services play has
>> newer features than the open source and commercial distro
>> (this depends on the open source license we end up with)
>> - 3rd party integrations: open source includes those engines
>> that are open source-able, the commercial includes those
>> that are integrated, tested and are licensable by oem, the
>> services piece delivers all under a single license/model
>> - quality: the open source is compliant and tested, the
>> commercial is fully tested and compliant and branded, the
>> services play allows us to support the oem/carrier thru
>> deployment of the device
>> - the best chance for armstrong success is a quick pace of innovation
>> keeping ahead of both the windows/qualcomm competition but also of

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>> our partners (nokia, google, moto, etc). we need to plan 2.0 6-9
>> months prior to 1.0 shipping. this shows leadership to the ecosystem,
>> google and gets our ideas ahead of everyone else.
>> - how can we protect the other verticals (digital media, etc)
>> if we go down the path of adding "midp on cdc" to linux and
>> making it linux source? could the answer be as absurd as: it
>> isn't possible to move this stack to a non-wireless device? or
>> even that the java implementation cannot be taken as a whole
>> and used elsewhere on another platform?
>>
>> ok, on to the 1.0 requirements... assuming that you are asking about
>> the open source/commercial distro source code only.... also assuming
>> you only want the sun java piece of the reqts piece....
>>
>> - java apis supported:
>> - somewhere in between msa subset and msa full (closer to
>> full is better) (nokia, moto, samsung, semc will be in
>> market by then with msa full)
>> - midp 2.1
>> - may need to add jsr 253 (jtapi) to handle call stack as
>> per armstrong
>> - google equivalent apis may be okay (as long as we start
>> jcp processes to bless them in parallel)
>> - implementation wise:
>> - all code is optimized to armstrong stack, eg:
>> - 177 uses sim card stack
>> - 184 uses 3d graphics engine
>> - 82 uses bt stack
>> - 135, 234 uses specific codecs
>> - lcdui uses existing widgets
>> - look must be customizable to match chameleon concept
>> (tools and mechanism can be different)
>> - full stack multi-tasking to support multiple midlets and
>> googlets (can i use this name)
>> - can we use the cougar use case doc to decide how
>> mt will work?
>> - ams
>> - integrated ams to support googlets and midlets and
>> the above use cases
>> - ams needs to have customizable look
>> - not exposing applets or xlets
>> - hardware support
>> - 1 ti omap platform, mutually chosen, likely a form
>> of 2430 or 3430
>> - memory footprint defined around 32, 32
>> - qvga screen
>> - would be good to have a demo device
>> - over time 1 platform from freescale, intel, infineon,
>> emp(?)
>> - no more
>> - quality:

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>> - open source: tck compliance and some testing
>> - commercial: tck compliance, jdts testing, platform testing
>> leading to branding
>> - 3rd party integration:
>> - open source: none
>> - commercial: 3rd party program to integrate, test and
>> distribute for eval a list of 3rd party engines
>> - porting layer(s) and tool(s):
>> - tbd but required (see above monologue on services being
>> lynchpin)
>> - metrics: footprint and performance
>> - tbd
>> - weave in the "implications" list
>>
>> i'm running out of steam and time. i don't think i radically changed
>> anything to your list except for the jsr list.
>>
>> let me know if i need to clarify anything...
>>
>> nachi
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>> --
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